

Transportation Management Center Pooled Fund Study 2004 Annual Meeting – June 8th – 10th

Minnesota Department of Transportation
Regional Transportation Management Center
1500 County Road B2 W., Roseville, MN 55113

Minutes

Tuesday, June 8

01:00 PM Introductions, Welcome, & Opening Remarks

Nick Thompson of Minnesota DOT began the day by welcoming everyone to the TMC Pooled Fund Study (PFS) Annual Meeting.

Marthand Nookala, Director of Operations, Safety and Technology, Minnesota DOT, welcomed participants. He noted the importance of TMCs in various aspects and the challenges TMCs are facing. He acknowledged the accomplishments of the TMC PFS.

Jon Obenberger and Raj Ghaman introduced and welcomed the new members of the TMC PFS and the first-time meeting participants.

The agenda was reviewed.

01:20 PM Succession of Co-Chair (Nick Thompson)

Robert Copp of Caltrans has served as the co-chair for two years. A new co-chair should be identified to succeed Robert's position. David Kinnecom of Utah DOT was recommended to succeed Robert as a Co-Chair of the TMC PFS. The recommendation was approved by consensus.

01:30 PM Presentation – Preliminary Results of Developing and Using Concept of Operations in Transportation Management Systems (Brian Smith, UVA)

Brian Smith of UVA gave a presentation on the Developing and Using Concept of Operations in Transportation Management Systems Project. Discussion on the project included the purpose, intended audience, a brief overview of a concept of operations, project schedule and key milestones, products to be produced, and current activities. Draft chapters of the technical document were outlined. Brian noted some early chapters were available on the TMC PFS web site for the review. Remaining draft chapters would be submitted incrementally in the next two months.

Jon asked what case studies would be included and how they would be selected. Brian indicated that case studies would include: (1) large systems, (2) regional systems, and (3) existing systems

with adding functionality. The case studies would include Caltrans' systems for the large system, iFlorida for the regional system, and Hampton Roads for the existing system.

Raj mentioned that it was important to have consistency in writing style when developing the document. He also stressed the importance of documenting lessons learned. In addition, he indicated that iFlorida was relative new. He questioned what one could expect to get from half finished projects such as iFlorida. Brian indicated that the iFlorida case study could present a system that could pave a road for the future. They would like to compare such a system with other case studies and systems.

Brian concluded that a few draft chapters of the document were available for review, and he would be looking forward to members' comments.

02:00 PM Presentation – Preliminary Results of TMC Business Planning and Plans Handbook (Pierre Pretorius, Kimley-Horn)

Pierre Pretorius of Kimley-Horn gave a presentation on the TMC Business Planning and Plans Handbook Project. Discussion on the project included project overview, purpose, objectives, intended audience, key issues, schedule, milestone, project status, and products to be developed.

Nick inquired the basis for selecting case studies. Pierre indicated that 11-13 case studies would be selected based on geographical locations, contracting types, functionality, and capability. Raj suggested including Long Island in the case study.

Raj inquired the definition of "Value Proposition." Pierre noted value proposition means values and benefits and it forms a basis for performance measures. Group discussed the subject related to measuring qualitative benefits. Jon indicated that Joe Peters of FHWA has collected numerous quantitative measures. The information is available on the ITS Deployment Tracking web site.

02:45 PM Break

02:55 PM Discuss Status Report on Other Current and Completed Projects (Jon Obenberger)

- *Coordinated Freeway and Surface Streets Operational Plans and Procedures*
- *TMC Operations Manual*
- *TMC Performance Monitoring, Evaluation and Reporting Handbook*
- *TMC Staffing and Scheduling for Day-to-Day Operations*
- *TMC Workshop Development and Proposal for Delivery*
- *TMC Clearinghouse Development and Initiation*

Jon gave a brief overview of the status of the Coordinated Freeway and Surface Street Operational Plans and Procedures Project. The presentation covered project purpose and objectives, intended audience, key issues and topics, project deliverables, and schedule and milestones. Ming-Shiun Lee of URS noted that chapters of the draft technical document were

available on the web page for review. It was expected that the final technical document would be available in July 2004.

Jon also gave a brief overview of the status of Transportation Management Center Operations Manual Project, including project objectives, intended audience, key task and activities, deliverables, and schedule and milestones. Battelle was selected to perform this project. The project kickoff meeting is expected in July 2004.

Jon also gave a brief overview of the status of TMC Performance Monitoring, Evaluation and Reporting Handbook Project, including project objectives, intended audience, key issues and topics, task and activities, deliverables, and schedule and milestones. FHWA has received several proposals. SAIC and Brian Smith of University of Virginia were selected to perform this project. Project kickoff is expected in July 2004.

Jon gave a brief overview of the status of TMC Staffing and Scheduling for Day-to-Day Operations Project. URS would be finalizing the statement of work in the next two weeks. It was anticipated the RFTP would be distributed in July 2004. The project kickoff meeting is expected in August/September 2004.

Jon also gave a brief overview of the status of TMC Workshops Development and Proposal for Delivery Project, including project objectives, intended audience, key issues and topics, task and activities, deliverables, and schedule and milestones. The statement of work would be finalized in early July. The project kickoff meeting is expected in September 2004.

Jon also gave a brief overview of the status of TMC Clearinghouse Development and Initiation Project, including project objectives, intended audience, key issues and topics, task and activities, deliverables, and schedule and milestones. The project kickoff meeting is expected in September 2004.

In addition, Jon provided a brief overview of the completed projects and products that have been produced. He noted that all available products are on the TMC PFS web site.

03:30 AM Presentation – Preliminary Results of TMC Operator Requirements, Position Description and Software (Dennis Folds, George Tech)

Dennis Folds of Georgia Tech Research Institute gave a presentation on the TMC Operator Requirements and Position Descriptions Phase 2 Project – Interactive Software. Discussion on the project included project overview, key milestones, and project status. Dennis also briefly walked through several screen shots of the prototype interactive software. The initial software release for testing would be in September 2004. Final interactive tool and documentation would be available in January 2005.

Members discussed functions and features of the interactive tools with Dennis. Dan Howard of New York DOT inquired if both current and future options in the Select Composite Task dialog box could be selected at the same time. Dennis replied that it would be a rare case but could be implemented. Mark Newland of Indiana DOT asked the capability of adding a new function or

task in the Select Discrete Tasks page. Dennis indicated that the program would prompt for new function when discrete task is selected.

04:00 PM Status Report – Progress and Preliminary Results of Impacts of Dynamically Displaying Messages on Changeable Message Signs (Tom Granda, FHWA)

Tom Granda of FHWA gave a presentation on the Impacts of Dynamically Displaying Messages on Changeable Message Signs Project. Discussion included project objectives, overview, status, study approach, and deliverables. Tom mentioned that the research plan for the study has not yet been finalized. He also mentioned that it would be difficult to take in account geographic differences. As such, the laptop study might be dropped, and the project might focus primarily on assessing impacts on older vs. younger drivers with four different loads to reflect real world scenarios.

Cynthia Levesque of Rhode Island DOT mentioned similar studies have been done. Tom indicated that previous studies were done without taking into account load as a factor.

Manny Agah of Arizona DOT asked why 2-phase messages were included in the study. He thought that two-phase messages might have limited value since they could be difficult to read while driving. Jeff Galas of Illinois DOT suggested that the study should include 2-phase messages to prove they are not advisable or beneficial. Tom mentioned that there were no empirical data to suggest the scenarios with 2-phase messages. Manny indicated the Enterprise has done a similar study and he would send Tom the study report.

Jon noted that another aspect of the project is to make recommendations to the MUTCD on whether 2-phase messages should be used and how they should be used.

Cynthia noted that it is difficult to read one-line messages in topographical areas like Rhode Islands.

Dan suggested that the age groups should be properly selected and, if possible, should be divided in 4 groups. Tom said that the age group distribution has not been finalized and the issue would be looked into further.

Nick asked if budget change was required due changes in scope. Tom noted that budget change were not required.

04:15 PM TMC Pooled Fund Study Communication Plan (Jeff Benson, URS)

Jeff Benson of URS gave a presentation on the TMC PFS Communication Plan. Discussion included goals and objectives, key messages, communication tasks and processes, outreach and marketing tools, tools development schedule, and communication strategies and tactics. Members stressed the importance of having good outreach and marketing products to demonstrate the value and benefits of the TMC PFS program.

Jon noted that agencies need information to communicate with customers as well as internal audience and decision makers within their agencies to justify funding. This communication plan was intended to serve those purposes.

Dan suggested that outreach activities could include publishing articles in technical publications such as AASHTO journals, ITE journals, etc. Bill Stoeckert of I-95 Corridor Coalition suggested looking into both outreach and in-reach of the program. Mia Silver of Michigan DOT mentioned that insert/overlay could be produced for different conferences/ audiences in the target groups. Raj suggested that communications beyond the group is necessary, and the PFS should target professional groups such as AASHTO and seek opportunities to give presentations with specific topics in their meetings/conferences.

Jeff Benson requested members to submit comments on the plan as well as suggestions and recommendations as to which tools and products should be produced. Comments and suggestions should be submitted to Ming by June 23.

05:00 PM Review Day 2 Agenda/Adjourn for Day (Co-chairs)

Wednesday, June 9

08:00 AM TMC Pooled Fund Study Funding Status (Raj Ghaman)

- *Commitments and obligations 2003-2004*
- *Planned expenditures 2004*
- *Proposed commitments & level of expenditures 2005*

Raj reviewed the funding status and discussed funding related issues. Raj noted commitment for 2005 has been received from several member agencies. He encouraged members whose agencies have not made commitment for 2005 to begin the process. In addition, Raj pointed out the recommended amount for consideration in selecting new projects for 2005.

*08:10 AM Review and Discuss Potential New Projects * (Co-chairs)*

- *Review project selection process*
- *Review of current project proposal*
- *Identify potential changes and issues to consider*
- *Identify any new projects not previously presented to members*

Nick reviewed the project selection process. He reminded the members to take a strategic look for the future of the TMC PFS when selecting projects.

Ming-Shiun Lee of URS reviewed the proposed new projects. As a result of previous ranking exercises, seven potential projects were listed for members' consideration and selection:

- Staffing & Scheduling for Day-to-Day Operations: Phase 2 – Software Development
- Integration of TMC and Law Enforcement
- Statewide, Multi-state and Regional TMC Concept of Operations and Requirements

- Recovery and Redundancy of TMC
- Displaying Travel Time and Roadway Condition Information at Approaches to Freeway Entrances
- Procuring, Managing, and Evaluating the Performance of Contracted TMC Services
- Requirements and Position Description for TMC Support Staff

Raj suggested conducting membership solicitation twice a year: once at the beginning of the calendar year and another after the annual meeting when new projects are selected. Members supported the suggestion and discussed the solicitation strategy. It was recommended the second solicitation could include a list of projects selected at the annual meeting as well as projects on the “wish list.” The solicitation would indicate the projects on the wish list would be funded with additional contribution from new members.

Raj mentioned that certain research-oriented projects could be funded by NCHRP. He would check into the opportunity.

Jon reviewed the results of the voting exercise after the May 4th conference call and identified the projects that were dropped after the voting. Members reviewed the results of the May 4th voting and were asked if additional projects should be added for consideration. John Corbin of Wisconsin DOT noted that the TMC Clearinghouse Project Phase 2 and the TMC Workshop Delivery Project Phase 2 were crucial to the success of the PFS and would recommend having them considered further.

Bill Stoeckert indicated the PFS has identified six categories of critical initiatives to pursue in the near term. However, the initially listed seven project proposals did not include two of the six categories: “Enhancing Business Management of TMCs” and “Knowledge and Information Sharing.” Bill used I-95 Corridor Coalition as an example and elaborated on the value and importance of having balanced projects to sustain a program.

Bill added that he agreed with Jon’s previous comments that it would be appropriate that the Integration of TMC and Law Enforcement Project is funded by David Helman and FHWA. Jon indicated that, depending on the priorities of the group and funding availability, the project could be funded by NCHRP or FHWA.

David Kinnecom said that he was disappointed with the NCHRP synthesis report on the TMC and law enforcement integration issues. He felt the report should have offered more detailed and specific guidance.

Raj mentions that some aspects of the Displaying Travel Time and Dynamic Messages Project have been addressed by FHWA in other research projects.

The following is a list of issues that were identified by the members to be considered for inclusion in the projects if they are considered further:

Staffing & Scheduling for Day-to-Day Operations: Phase 2 – Software Development (\$175,000)

- Not a high priority
- Existing software available
- Information gathering could be difficult
- Needs vary by areas
- Cost seemed too high
- Need guidance on staff needs and requirement for system components (such as ramp metering)
- Issues resides in concept of operations

Integration of TMC and Law Enforcement (\$150,000)

- Also consider fire departments, emergency medical services, emergency management, public safety, and incident responders
- Training is required
- Outreach effort
- Operational issues. How information is exchanged
- Focus locally
- Environment to facilitate communication

Statewide, Multi-state and Regional TMC Concept of Operations and Requirements (\$150,000)

- Consider multi-state environment
- Consider statewide, multi-state and regional relationship
- Build off of current Concept of Operations project

Recovery and Redundancy of TMC (\$250,000)

- Include portable/alternate TMCs
- Cost seems low. (Cost was then adjusted from \$150K to \$250K)
- Guidance is needed
- Level of technical issues included
- Design and literature for this project are present
- Emphasize on functional issues
- Prioritizing functions and services needed
- Need guidance on practice and on developing policies
- Include different scenarios
- Should not focus only on technology
- Consider power-failure and ultimate disasters
- NCHRP 20-59 describes what needs to be done in emergency conditions. The document would be updated in coming months

Displaying Travel Time and Roadway Condition Information at Approaches to Freeway Entrances (\$150,000)

- Too narrowly focused. Need to determine communications needs and placement of signs. Also need to consider the impact of diversion traffic on surface streets.
- Synthesize current and best practices
- Information directly to cars and PDA's

- Corridor management projects currently in progress. Might be a duplicated effort.
- Extensive infrastructure needs
- Look into low cost ways to display information
- Combine with the Developing and Displaying Travel Time Information project

Procuring, Managing, and Evaluating the Performance of Contracted TMC Services (\$175,000)

- Current trend and a timely project
- Each state has own localized issues
- Include highway helpers, service patrol, etc.
- Field equipments vs. TMC facilities
- Focus on transportation management systems. That is including field infrastructure
- Separate project in two phases. The field component would be considered in Phase2

Requirements and Position Description for TMC Support Staff (\$175,000)

- Include software development
- Cost should be increased to include software and make it a complete project
- Combine with Procuring, Managing, and Evaluating the Performance of Contracted TMC Services

TMC Workshop Delivery, Phase 2 (\$200,000)

- An important and necessary step in completing PFS projects
- Information sharing is a crucial component of TMC PFS
- Completing prior effort before taking on second phase

TMC Clearinghouse Support Services, Phase 2 (\$150,000)

- An important and necessary step in completing PFS projects

09:45 PM Break: During Break Members Prioritize Project Proposals

Following the discussion, members proceeded with voting and prioritizing the projects to pursue in 2005. Results of the project selection are summarized in the table below:

Project	Score	Rank
Recovery and Redundancy of TMC	48	1
Integration of TMC and Law Enforcement	38	2
TMC Clearinghouse Support Services, Phase 2	36	3
Procuring, Managing, and Evaluating the Performance of Contracted TMC Services	27	4
Statewide, Multi-state and Regional TMC Concept of Operations and Requirements	25	5
Requirements and Position Description for TMC Support Staff	24	6

Displaying Travel Time and Roadway Condition Information at Approaches to Freeway Entrances	21	7
TMC Workshop Delivery, Phase 2	19	8
Staffing & Scheduling for Day-to-Day Operations: Phase 2 – Software Development	2	9

10:00 AM Prioritize 2005 Projects to Initiate (Co-chairs)

The group reviewed the voting results. The three top-ranked projects were selected as the priorities to consider pursuing in 2005. They were:

- Recovery and Redundancy of TMC
- Integration of TMC and Law Enforcement
- TMC Clearinghouse Support Services, Phase 2

The Staffing & Scheduling for Day-to-Day Operations Phase 2 – Software Development Project received only two votes, and therefore it was removed from the list. Since the five remaining projects were close in terms of the scores, a second vote on those five projects was conducted. Prior to the second voting exercise, the group further discussed the projects.

TMC Workshop Delivery Phase 2

- Combine with TMC Clearinghouse Phase 2 with a total budget at \$175,000 level
- As a pilot and scaling it down to \$50,000

Procuring, Managing, and Evaluating the Performance of Contracted TMC Services

- Add cost to include field components
- Alternatively, split in two phases or combined with other projects
- Focus on contracting services. May not be appropriate to combine with the Requirements and Position Description for TMC Support Staff Project
- It was agreed the project would not combine with other projects. The cost was adjusted to \$200,000.

Requirements and Position Description for TMC Support Staff

- Add \$50,000 for software development/modification
- Build off of the current software, not start from scratch.
- It was agreed the cost was adjusted to \$225,000

Results of the second vote are shown below:

Project	Score
Procuring, Managing, and Evaluating the Performance of Contracted TMC Services (\$200,000)	62
Statewide, Multi-state and Regional TMC Concept of Operations and Requirements (\$150,000)	52
Requirements and Position Description for TMC Support Staff (\$225,000)	46
TMC Workshop Delivery, Phase 2 (\$50,000)	46
Displaying Travel Time and Roadway Condition Information at Approaches to Freeway Entrances (\$150,000)	34

Based on available funding, the group recommended including the two top-ranked projects in the second voting exercise as the priorities in 2005. Thus, the following five projects were selected as the priorities to pursue in 2005:

- Recovery and Redundancy of TMC (\$250,000)
- Integration of TMC and Law Enforcement (\$150,000)
- TMC Clearinghouse Support Services, Phase 2 (\$125,000)
- Procuring, Managing, and Evaluating the Performance of Contracted TMC Services (\$200,000)
- Statewide, Multi-state and Regional TMC Concept of Operations and Requirements (\$150,000)

The groups also decided that the following two projects would remain on the wish list pending on funding availability:

- Requirements and Position Description for TMC Support Staff (\$225,000)
- TMC Workshop Delivery, Phase 2 (\$50,000)

These two projects would likely be initiated if additional contribution were received from new members in 2005.

02:00 PM Status Report and Feedback on FHWA Ramp Metering Software (Raj Ghaman)

Raj Ghaman gave a presentation on the FHWA initiatives related to ramp metering studies and software. Highlights of the discussion included:

- Ramp metering strategies
- Ramp metering program for recurring and non-recurring congestion
- Simulation software (CORSIM) for verification
- Field test of simulation tools

02:40 PM FHWA Program Plan, Road Maps & Feedback on FHWA Freeway Management Program (Jon Obenberger)

Jon gave a presentation on FHWA Freeway Management Program Plan and related national initiatives. Discussion included FHWA Freeway Management Program areas, vision, goals and objectives, key initiatives, available products, and proposed projects.

03:30 PM Remaining TMC PFS Activities for 2004 (Raj Ghaman)

- *Discuss date and agenda for next meeting*
- *Discuss schedule and process to solicit participation for 2005*
- *Distribute vouchers to invitational travelers*

Members discussed potential locations for the annual meeting next year. Candidate locations included: Los Angeles, Providence, Kansas City, Chicago, and New York. The group recommended Providence, Rhode Island as the location for the next annual meeting. Ming would send e-mail to members to get their reactions on the recommended location.

Raj inquired if members comfortable with the contracting vehicle and process that were used for the PFS projects. He noted the pros and cons of different contracting vehicles that could be used. The majority of the PFS projects used the Indefinite Quantity Contract (IQC) or Indefinite Delivery Indefinite Quantity (IDIQ) contracting mechanisms. He noted the current contracting process is good but has limitation.

Raj also mentioned he was not sure about the proposal review/selection and contract awarding process. He inquired if all members or project champions should be involved in the process. Jon indicated that in the past project champions reviewed the statements of work. Other members were also invited to review and provide comments. To minimize members' time and effort, proposal review and selection was done by FHWA.

04:00 PM Overview of Tour & Logistics, Adjourn for the Day

The meeting was adjourned for the day.

Thursday, June 10

08:00 AM Tour and Presentations of Minnesota Department of Transportation Regional Transportation Management Center (RTMC)

- *Presentation – I-394 HOT Lane Project (Daryl Taavola)*
- *Presentation – North/West Passage Transportation Pooled Fund Study (Mark Nelson)*
- *Presentation – Twin Cities Ramp Metering Study (Nick Thompson)*
- *Presentation – RTMC Software (Nick Thompson)*
- *Tour of RTMC*

11:00 AM Adjourn

Attendees

<u>Name</u>	<u>Organization</u>
Manny Agah	Arizona Department of Transportation
Monica Kress	CALTRANS
Kamal Hamud	DC Department of Transportation
Gene Donaldson	Delaware Department of Transportation
Raj Ghaman	Federal Highway Administration
Jon Obenberger	Federal Highway Administration
Mark Wilson	Florida Department of Transportation
Bill Stoeckert	I-95 Corridor Coalition
Jeffrey Galas	Illinois Department of Transportation
Mark Newland	Indiana Department of Transportation
Rex Fleming	Kansas Department of Transportation
Mia Silver	Michigan Department of Transportation
Nick Thompson	Minnesota Department of Transportation
Marthand Nookala	Minnesota Department of Transportation
Bernie Arseneau	Minnesota Department of Transportation
Daryl Taavola	Minnesota Department of Transportation
Mark Nelson	Minnesota Department of Transportation
Lisa Vieth	Missouri Department of Transportation
Dan Howard	New York Department of Transportation
Craig Reed	Pennsylvania Department of Transportation
Cynthia Levesque	Rhode Island Department of Transportation
Davis Kinnecom	Utah Department of Transportation
Vinh Dang	Washington Department of Transportation
John Corbin	Wisconsin Department of Transportation
Gary Knerr	Wisconsin Department of Transportation
Kelly Langer	Wisconsin Department of Transportation
Pierre Pretorius	Kimley-Horn Associates
Jeff Benson	URS Corporation
Ming-Shiun Lee	URS Corporation
Ruta Jariwala	URS Corporation

Via Teleconference

Tom Granda	Federal Highway Administration
Brian Smith	University of Virginia
Dennis Folds	Georgia Tech